## LPDES PERMIT NO. LA0066133 (Agency Interest No. 2679)

#### LPDES STATEMENT OF BASIS

FOR THE DRAFT LOUISIANA POLLUTANT DISCHARGE ELIMINATION SYSTEM (LPDES) PERMIT TO DISCHARGE TO WATERS OF LOUISIANA

I. Company/Facility Name: Air Products and Chemicals, Inc.

Geismar 1 SMR Facility 36637 Louisiana Highway 30 Geismar, Louisiana 70734

II. Issuing Office: Louisiana Department of Environmental Quality (LDEQ)

Office of Environmental Services

Water Permits Division Post Office Box 4313

Baton Rouge, Louisiana 70821-4313

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**Date Prepared:** July 29, 2009

<u>LAC 33:IX Citations:</u> Unless otherwise stated, citations to LAC 33:IX refer to promulgated regulations listed at Louisiana Administrative Code, Title 33, Part IX.

40 CFR Citations: Unless otherwise stated, citations to 40 CFR refer to promulgated regulations listed at Title 40, Code of Federal Regulations in accordance with the dates specified at LAC 33:IX.4901, 4903, and 2301.F.

### IV. Permit Action/Status:

### A. Reason for Permit Action:

Proposed reissuance of a Louisiana Pollutant Discharge Elimination System (LPDES) permit for a 5-year term following regulations promulgated at LAC 33:IX.2365/40 CFR 122.46.

In order to ease the transition from NPDES to LPDES permits, dual regulatory references are provided where applicable. The LAC references are the legal references while the 40 CFR references are presented for informational purposes

only. In most cases, LAC language is based on and is identical to the 40 CFR language. 40 CFR Parts 401, 405-415, and 417-471 have been adopted by reference at LAC 33:IX.4903 and will not have dual references. In addition, state standards (LAC 33:IX. Chapter 11) will not have dual references.

- B. LPDES permit: Permit Effective Date July 1, 2004
  Permit Expiration Date June 30, 2009
- C. Application submittal date: Application submitted on March 31, 2009, additional information submitted on April 7, 2009, June 22, 2009 and by email on September 17, 2009

### V. Facility Information:

- A. Location 8013 Highway 3251, Geismar, Ascension Parish (Latitude 30°11'01", Longitude 90°59'15").
- B. Applicant Activity -

Air Products and Chemicals, Inc. is an existing industrial gas plant that manufactures hydrogen and a synthesis gas of hydrogen and carbon monoxide by the steammethane reforming process using natural gas as feedstock. The hydrogen and synthesis gas is delivered to customers via pipeline.

Effluent guidelines promulgated at 40 CFR 415 include subparts relevant to the production of carbon monoxide and hydrogen – Subpart AG and Subpart AO. Subpart AG is not applicable to Air Products Geismar because the facility does not discharge process wastewaters. The facility's process wastewaters and potentially contaminated stormwater are routed to the adjacent Shell facility (LA00005754, AI 1136) for treatment and discharge. Subpart AO is not applicable to the facility since it does not produce hydrogen as a refinery by-product. Therefore technology limitations in the draft permit are based upon best professional judgment (BPJ) and current office practices.

- C. Fee Rate -
  - 1. Fee Rating Facility Type: Minor
  - Complexity Type: II (BPJ...there is no complexity listing for carbon monoxide, therefore the complexity designation for carbon dioxide was used as BPJ)
  - 3. Wastewater Type: III
  - 4. SIC code: 2813

- VI. Receiving Waters: unnamed drainage ditch thence to Smith Bayou
  - A. River Basin: Lake Pontchartrain Basin, Segment No.: 040404
  - B. Designated Uses: primary contact recreation, secondary contact recreation, and fish and wildlife propagation

### VII. Outfall Information:

### Outfall 001

- A. Type of wastewater The intermittent discharge of low contamination potential stormwater runoff from the central areas of the facility, and non-process utility wastewaters including but not limited to fire water testing wastewater, safety shower testing wastewater, freeze/heat protection water, uncontaminated rinse water, cooling tower over-spray, steam condensate from steam traps, and previously tested hydrostatic test wastewater from Internal Outfall 101
- B. Location At the point of discharge from the northeast corner of the Air Products Plant prior to mixing with other waters (Latitude 30°10'59", Longitude 90°59'16")
- C. Treatment None
- D. Flow 0.31 MGD, Intermittent
- E. Receiving waters unnamed drainage ditch thence to Smith Bayou
- F. Basin and segment Lake Pontchartrain Basin, Segment 040404

### Outfall 101

- A. Type of wastewater The intermittent discharge of hydrostatic test wastewater
- B. Location At the point of discharge from the vessel or pipeline being tested prior to combining with other waters
- C. Treatment None
- D. Flow varies

- E. Receiving waters To Final Outfall 001, thence to unnamed drainage ditch thence to Smith Bayou
- F. Basin and segment Lake Pontchartrain Basin, Segment 040404

## VIII. Proposed Permit Limits and Rationale:

The following section sets forth the principal facts and the significant factual, legal, methodological, and policy questions considered in preparing the draft permit.

### A. PROPOSED CHANGES:

- 1. Outfall 101 This internal outfall was added to the permit for hydrostatic test waters
- 2. Outfall 001 The monitoring frequency for pH has been reduced to 1/quarter due to the facility's good compliance with the limitations.

### B. PROPOSED EFFLUENT LIMITATIONS

Outfall 001 – The intermittent discharge of low contamination potential stormwater runoff from the central areas of the facility, and non-process utility wastewaters including but not limited to fire water testing wastewater, safety shower testing wastewater, freeze/heat protection water, uncontaminated rinse water, cooling tower over-spray, steam condensate from steam traps, and previously tested hydrostatic test wastewater from Internal Outfall 101

Parameter	Proposed Permit Limitations		Monitoring Frequency
	Monthly Average mg/L	Daily Maximum mg/L	
Flow	Report	Report	1/quarter
pН	6.0 s.u. (Min)	9.0 s.u. (Max)	1/quarter
TOC		50 mg/L	1/quarter
Oil & Grease		15 mg/L	1/quarter

## EFFLUENT LIMITATIONS BASIS for Outfall 001:

Flow: The requirement to report flow is based upon LAC 33:IX.2707.I.1.b.

**TOC:** Limitations are based upon current utility wastewater and stormwater guidance and the previous permit.

Oil & Grease: Limitations are based upon current utility wastewater and stormwater guidance and the previous permit.

pH: Requirements are based upon LAC 33:IX.1113.C.1.

Outfall 101 – The intermittent discharge of hydrostatic test wastewaters

Parameter(*1)	Proposed Permit Limitations		Monitoring Frequency
	Monthly Average mg/L	Daily Maximum mg/L	
Flow	Report	Report	1/discharge event
рН	6.0 s.u.(min)	9.0 s.u.(max)	1/discharge event
TSS		90 mg/L	1/discharge event
Oil & Grease		15 mg/L	1/discharge event
TOC		50 mg/L	1/discharge event
Benzene		50 μg/L	1/discharge event
Total BTEX		250 μg/L	1/discharge event
Total Lead		50 μg/L	1/discharge event

(\*1) Flow, TSS, Oil and Grease, and pH shall be measured on discharges from all new and existing pipelines, flowlines, vessels, or tanks. In addition, Total Organic Carbon (TOC) shall be measured on discharges from existing pipelines, flowlines, vessels, or tanks which have previously been in service; (i.e., those which are not new). Benzene, Total BTEX, and Total Lead shall be measured on discharges from existing pipelines, flowlines, vessels, or

tanks which have been used for the storage or transportation of liquid or gaseous petroleum hydrocarbons.

## EFFLUENT LIMITATIONS BASIS for Outfall 101:

Flow: The requirement to report flow is based upon LAC 33:IX.2707.I.1.b.

pH, TSS, Oil & Grease, TOC, Benzene, Total BTEX and Total Lead: Limitations based BPJ and the LPDES Hydrostatic Test Waters General Permit (LAG670000).

## C. MONITORING FREQUENCIES

Monitoring frequencies for all outfalls are based upon office guidance for similar discharges and/or the previous permit.

# IX. Compliance History/DMR Review:

- A. Compliance History There are no open enforcement actions against the facility as of September 4, 2009
- B. DMR Review There were no violations reported between 1/1/2007 8/31/2009
- C. Inspections The last inspection of the facility (1/15/2004) noted no areas of concern.

### X. Endangered Species:

The receiving waterbody for Air Products and Chemicals, Inc. is Subsegment 040404 of the Lake Pontchartrain Basin. The receiving waterbody, Subsegment 040404 of the Lake Pontchartrain Basin is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated November 18, 2008, from Rieck (FWS) to Nolan (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

### XI. Historic Sites:

The discharge is from an existing facility location, which does not include an expansion on undisturbed soils. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

### XII. Tentative Determination:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to issue a permit for the discharges described in the application.

#### XIII. Variances:

No requests for variances have been received by this Office.

### XIV. Public Notices:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

A public notice will be published in a local newspaper of general circulation and in the Office of Environmental Services Public Notice Mailing List.

### XV. TMDL Waterbodies:

Air Products and Chemicals, Inc. discharges non-process utility wastewaters, and stormwater to unnamed drainage thence to Smith Bayou (Segment 040404). Segment 040404 of the Lake Pontchartrain Basin is currently impaired for organic enrichment/low DO and pathogen indicators. TMDLs are scheduled for completion by March 31, 2011, with an EPA backstop date of March 31, 2012. This Office has determined that due to the nature of the discharges from Air Products and Chemicals, Inc., there is no potential to discharge pollutants that could contribute to organic enrichment or pathogen indicators at a level that could cause or contribute to further impairment of the receiving stream. The TOC requirements established in the permit are appropriate to indicate if there are elevated levels of organic materials in the discharge.

A reopener clause will be included in the permit to allow for the establishment of more stringent effluent limitations and requirements as imposed by any future TMDLs.

## XVI. Stormwater Pollution Prevention Plan (SWP3) Requirements:

In accordance with LAC 33:IX.2707.I.3 and 4 [40 CFR 122.44(I)(3) and (4)], a Part II condition is proposed for applicability to all storm water discharges from the facility, either through permitted outfalls or through outfalls which are not listed in the permit or as sheet flow. For first time permit issuance, the Part II condition requires a Storm Water Pollution Prevention Plan (SWP3) within six (6) months of the effective date of the final permit. For renewal permit issuance, the Part II condition requires that the Storm Water Pollution Prevention Plan (SWP3) be reviewed and updated, if necessary, within six (6) months of the effective date of the final permit. If the permittee maintains other plans that contain duplicative information, those plans could be incorporated by reference to the SWP3. Examples of these type plans include, but are not limited to: Spill Prevention Control and Countermeasures Plan (SPCC), Best Management Plan (BMP), Response Plans, etc. The conditions will be found in the draft permit. Including Best Management Practice (BMP) controls in the form of a SWP3 is consistent with other LPDES and EPA permits regulating similar discharges of stormwater associated with industrial activity, as defined in LAC 33:IX.2522.B.14 [40 CFR 122.26(b)(14)].